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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,796	09/21/2000	Teruyuki Motohashi	Q60910	6835

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EXAMINER	
CHANG, ERIC	
ART UNIT	**PAPER NUMBER**
2185	10

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/666,796	MOTOHASHI, TERUYUKI	
	Examiner	Art Unit	
	Eric Chang	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7,8,9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-18 are pending.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,205,343 to Montgomery in view of U.S. Patent 5,887,179 to Halahmi.

5. As to claim 1, Montgomery discloses a data processing device comprising:

[a] a display unit [col. 3, lines 4-5];

[b] a light-emitting unit which illuminates said display unit [col. 3, lines 4-5]; and

[c] a controller which limits a current to be supplied to said light-emitting unit when said detector has detected that said specific functional part is in operation [col. 4, lines 47-67, and col. 5, lines 1-7].

Montgomery discloses that the light-emitting unit, such as light emitting diodes, illuminates the display unit has its current limited when it is determined that a portion of the device is in operation. Montgomery further teaches that the portion of the device that is determined to be in operation is the radio-communicating portion of the device [col. 5, lines 20-32], and that the display is consequently turned off when the radio-communicating portion of the device is active during transmission or reception, substantially as claimed.

Montgomery teaches that the reduction of power to the light-emitting unit occurs when the radio-communicating portion of the device is active, as determined by the activity of the transmitting and receiving circuits during their respective time intervals [col. 5, lines 1-7]. Although it would be obvious to one of ordinary skill in the art that the device taught by Montgomery is able to detect when the radio-communicating portion of the device is active for transmitting and receiving, such as when a user is utilizing the device for communication purposes, Montgomery does not teach that the determination of whether the specific transmitting and receiving circuits are active is performed by activity detection means.

Halahmi teaches that a detector which detects whether a specific functional part in the device is in operation or not [col. 3, lines 62-67, and col. 4, lines 1-8], and that current is limited to unnecessary functional parts of the device when said specific functional part is in operation [col. 2, lines 53-59]. The repetitive tasks taught by Halahmi may include such operations as repeated transmit and receive operations performed by a radio communicating subsystem.

At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the activity detection as taught by Halahmi. One of ordinary

skill in the art would have been motivated to do so that the activity of the transceiver can be determined in order to consequently power down the display.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of reducing power to inactive portions of a device not in use while other portions of the device are operational. Moreover, the activity detection means taught by Halahmi would improve the flexibility of Montgomery because it allowed the powering down of the display to dynamically occur at any time the radio communicating subsystem is active, instead of being bound by predetermined time intervals.

6. As to claims 2, 4, 6, 8, 10 and 12, Montgomery teaches all of the limitations of the claim, including a data interface for the device that is illuminated by said light-emitting unit [col. 3, lines 20-23], and that the illumination of the interface occurs in conjunction with the illumination of the display [col. 6, lines 66-67, and col. 7, lines 1-10]. Furthermore, it would be obvious to one of ordinary skill in the art that if the display is disposed in proximity to the interface that the lighting of the display would likewise illuminate the interface.

7. As to claim 3, Montgomery and Halahmi disclose all of the limitations of the claim. In addition, Montgomery teaches that the light-emitting unit, comprising light emitting diodes, illuminates the display unit has its current limited when it is determined that a portion of the device is in operation. Montgomery likewise teaches that the number of light-emitting diodes from the plurality comprising the display is controlled in this manner [col. 4, lines 47-67, and col. 5, lines 1-4], substantially as claimed.

8. As to claims 5 and 7, Montgomery and Halahmi disclose all of the limitations of the claim. In addition, Montgomery teaches that the portion of the device that is determined to be in operation is the radio-communicating portion of the device [col. 5, lines 20-32], and that the display is consequently turned off when the radio-communicating portion of the device is active during transmission or reception, substantially as claimed. Furthermore, Montgomery teaches this is done in accordance with the transmission power consumed in radio communication carried out by said communication unit [col. 4, lines 46-59]; that is, to reduce the peak current from the maximum output of the voltage converter during periods of communication.

9. As to claims 9 and 11, Montgomery and Halahmi disclose all of the limitations of the claim. In addition, Montgomery and Halahmi teach a data processing device that controls the illumination of the display if it has been detected that a radio-communicating unit part of the device is in operation [col. 5, lines 20-32], in accordance with the transmission power consumed in radio communication carried out by said communication unit [col. 4, lines 46-59]. Furthermore, Montgomery likewise teaches that the number of light-emitting diodes from the plurality comprising the display is controlled when said detection occurs [col. 4, lines 47-67, and col. 5, lines 1-4], substantially as claimed.

10. As to claims 13-18, Montgomery and Halahmi disclose a data processing device that controls the illumination of the display if it has been detected that a functional part, such as a radio-communicating unit, is in operation. Because Montgomery and Halahmi teach the

apparatus, Montgomery and Halahmi also teach the methods for operating a device in such a manner, substantially as claimed.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

ec
June 19, 2003

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100